

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A single track-and-hold circuit having an input signal (Vin) and an output signal (Vs), a bootstrap switch (14a) having as its inputs a clock signal and an input signal (vin), said input signal (vin) of said bootstrap switch (14a) being connected to said output signal (Vs) of said circuit via a current source level-shifting (20) and a buffering transistor means (30), characterized in that said input signal (vin) of said bootstrap switch (14a) comprises said output signal (Vs) of said circuit; said single track-and-hold circuit further comprising a capacitor (12), said input signal (Vin) being connected to said capacitor (12) via a switch (10), said switch (10) being closed during a track mode of said circuit and open during a hold mode of said circuit, said bootstrap switch (14a) having as an output to said switch (10), a clock signal (clkboot) equal to said input signal (Vin) added to a supply voltage (Vdd); and
including a second bootstrap switch ~~two or more bootstrap switches~~ (14a, 14b), the input signal (vin) ~~of each~~ of which is connected to said output signal (Vs) of said single track-and-hold circuit via said current source level-shifting (20) and said buffering transistor means (30) of said single track-and-hold circuit.

2. (canceled)

3. (currently amended) A single track-and-hold circuit according to claim 1, wherein said buffering transistor means (30) comprises a MOS transistor.

4. (previously presented) A single track-and-hold circuit according to claim 3, wherein said MOS transistor (30) is a PMOS transistor.

5. (canceled)

6. (previously presented) A single track-and-hold circuit according to claim 1, further comprising one or more dummy switches (16) which are clocked in anti-phase to said switch (10) connecting said input signal (Vin) to said capacitor (12).

7. (currently amended) A single track-and-hold circuit according to claim 6, wherein said input signal (Vin) is connected to said dummy switches (16) via said second a bootstrap switch (14b), having as an additional input an anti-phase clock signal.

8. (original) An analog-to-digital converter including a track-and-hold circuit according to claim 1.

9. (original) An integrated circuit including an analog-to-digital converter according to claim 8.